



# Republican Policy Committee

Larry E. Craig, Chairman    Jade West, Staff Director    347 Russell Senate Office Building    (202)224-2946    <http://www.senate.gov/~rpc/>  
July 29, 1996

## *Serious Questions Remain*

# The Chemical Weapons Convention: Impact on U.S. Business Could Be Far-Reaching

Until recently, most examination of the Chemical Weapons Convention (CWC) has centered on issues such as verification, compliance, and other matters typical of arms control agreements. While such concerns will continue to be a major factor as the Senate approaches a vote on its advice and consent to the CWC's ratification, the question of the regulatory impact on American businesses — including firms whose products are not generally understood as having any relation to chemical weapons — is gaining increasing attention. This paper provides an overview of the CWC, discusses the likely regulatory impact of the CWC's "schedule" system on U.S. companies, and notes other issues such as constitutional implications of the inspection regime established by the CWC.

## *Senate Consideration of the CWC*

The Republican Leader will take the Senate into executive session for consideration of the Chemical Weapons Convention (Treaty Doc. 103-21, Executive Calendar No. 12) prior to September 14 of this year, per a unanimous consent agreement entered into on June 28, 1996.

The resolution of ratification was reported favorably by the Committee on Foreign Relations on April 30, 1996, by a vote of 13 to 5 (voting in the negative were the Chairman, Senators Helms, along with Senators Brown, Coverdell, Grams, and Ashcroft), subject to seven conditions and eleven declarations. To date, there is no report from the Foreign Relations Committee, nor from the Committee on Armed Services (which has concurrent jurisdiction); the Senate Select Committee on Intelligence issued a report in September 1994: S. Rept. No. 103-390: "U.S. Capability to Monitor Compliance with the Chemical Weapons Convention." (For a detailed analysis of the issues raised by the Intelligence Committee report, see RPC's "Should the Senate Ratify the Chemical Weapons Convention?", 10/6/94.)

Two amendments to the resolution of ratification by the Republican Leader or his designee are in order, with one hour of debate on each amendment; in addition, there will be 10 hours of debate on the resolution itself, equally divided.

## *Longstanding Concerns About the CWC*

Opponents claim the CWC would be costly and ineffective in halting the spread of chemical weapons and might even make their use more likely. (See, for example, "The Chemical Weapons

Convention: A Bad Deal for America," by Baker Spring, Senior Policy Analyst, The Heritage Foundation, 4/15/96.) Countries thought to have active chemical weapons programs, such as Egypt, Iraq, Libya, North Korea, Syria, and the Republic of China (Taiwan), are not even signatories of the CWC and thus are not bound by its provisions. Other confirmed or suspected chemical weapons countries such as mainland China, India, Iran, Israel, Pakistan, and Russia have signed the CWC but their ratification is uncertain. In any case, the extent to which the United States could verify CWC compliance by other ratifying countries is questionable. As then-Director of the Central Intelligence Agency, James Woolsey, stated in his June 1994 testimony before the Foreign Relations Committee: "The chemical weapons problem is so difficult from an intelligence perspective that I cannot state that we have high confidence in our ability to detect noncompliance, especially on a small scale."

## **Chemical Weapons Convention Overview**

### **Purpose of the Treaty**

The CWC bans the development, production, acquisition, stockpiling, retention, and direct or indirect transfer of chemical weapons. It also prohibits the use, or preparation for use, of chemical weapons and the assistance, encouragement, or inducement of anyone else to engage in activities prohibited by the CWC. It also requires parties to destroy existing stockpiles within 10 years of the CWC's entry into force. (Actual *use* of chemical weapons, though not their production or possession, has been banned since the Geneva Protocol of 1925. The United States and Russia are the only two countries that officially acknowledge possessing chemical weapons.) The CWC will enter into force 180 days after it is ratified by 65 countries, which is expected to occur in August 1996, whether or not the United States ratifies.

### **The Organization for the Prohibition of Chemical Weapons**

Overseeing this process will be a new international organization, created by the CWC, under the umbrella of the United Nations. This new U.N. body, the Organization for the Prohibition of Chemical Weapons (OPCW), served by a Technical Secretariat and managed day-to-day by a 41-member Executive Council, will have authority to inspect any facility it believes is producing chemical weapons and to require companies that produce (or in some cases, consume) any of the chemicals regulated by the CWC to submit detailed records as to actual and planned consumption or production of covered chemicals.

If the United States were to ratify the CWC, the American taxpayer would be responsible for some 25 percent of the operating expenses of these CWC enforcement bodies. Membership on the OPCW Executive Council is determined by a rotating regional formula, with the majority of seats allocated to Third World countries; the United States would not necessarily be represented on the Executive Council at all times, nor would there be any U.S. "veto" as there is in the U.N. Security Council.

## Regulation of Chemicals

In order to detect any possible production of chemical weapons, the CWC institutes a substantial verification program applicable to a broad range of U.S. companies that manufacture or work with chemicals. Although almost all of these chemicals have legitimate commercial applications, the fact that they can also be employed in the production of chemical weapons makes their production, for whatever purpose, subject to regulation under this treaty. The CWC assigns these chemicals to "schedules," based upon what is believed to be their relative usefulness for weapons purposes. Each schedule has its own regime of reporting requirements, forms to be submitted, and inspection liabilities for producing firms. Depending on which "schedule" a firm's chemicals are listed, the forms are estimated to take from two and a half to nine hours to complete, per chemical. A new form is required at least five days before changing the type or amount of chemicals used. Pursuant to federal implementing legislation (see *Federal Implementing Legislation*, page 4), violations would expose a firm to fines of up to \$50,000 per violation. Such violations would not have to involve any actual connection with chemical weapons but simply an unreported or incorrectly reported change in a company's production schedule. (See *CWC Regulatory Schedules*, page 5.)

## Inspections of Companies Producing Listed Chemicals

The CWC is the first treaty in history that would subject private U.S. industry to direct, on-site verification by an international authority. Under the CWC, there would be two basic types of inspection: routine and challenge. Routine inspections would be directed at sites producing chemicals that present the greatest risk of diversion to weapons uses; a party could be subject to up to 20 routine inspections per year and a specific site up to two inspections. Challenge inspections would be conducted pursuant to a request by a party to the CWC and can take place anywhere on short (12 hour) notice; there is no limit on the possible number of challenge inspections.

Inspectors would be permitted to interview site personnel, inspect records, photograph on-site apparatus, take samples, record readings of plant equipment, and use instruments to monitor processes. Inspected firms would be responsible for escorting the inspectors; providing them a room from which they can inspect the facility; briefing them on the layout of the plant site, the location of the facility they have come to inspect, and any safety practices and precautions they should be aware of; and providing any other types of support they might need to perform their duties as inspectors. Inspections may involve production shutdown, with associated costs such as lost income. The company inspected is also responsible for bearing the full cost of the inspection, including the meals and lodging of the inspectors, as part of the "cost of doing business" in chemicals.

The Defense Department estimated that the cost imposed on a company with a large facility could be as high \$500,000 per inspection (mostly in nonrecurring costs), while small businesses should expect inspections to cost \$10,000-\$20,000 [letter from the Office of the Defense Secretary to the Congressional Office of Technology Assessment, April 1993]. According to its schedule, a given company could be subject to two routine inspections per year per site and, potentially, an unlimited number of challenge inspections. Aggregate cost to U.S. industry is subject to conjecture (see *Affected Companies*, below) but could be substantial: "Estimates of the direct cost that

implementing CWC will impose on U.S. businesses range as high as \$200 million annually. The potential indirect costs to businesses, such as those stemming from the loss of confidential information [see *Other Issues*, page 9], are difficult to estimate. However, billions of dollars in losses are not out of the question" ["Ratifying the Chemical Weapons Convention: American Business Will Pay the Price," by Baker Spring, The Heritage Foundation, 7/18/96].

## Federal Implementing Legislation

If the United States ratifies the CWC, implementing legislation would have to be adopted to bring U.S. law and regulations into compliance with the treaty. The implementing legislation, S. 1732, the "Chemical Weapons Convention Implementation Act of 1995," was introduced on May 8, 1996, by Senators Lugar and Pell and referred to the Foreign Relations Committee.

In accordance with the CWC, S. 1732 would require the President to establish a new federal office or agency, the "National Authority," defined as "the national focal point for effective liaison with" the OPCW (Section 101). The Department of Commerce would be required to promulgate regulations "under which each person who produces, processes, consumes, exports or imports, or proposes to produce, process, consume, export or import, a chemical substance subject to the Chemical Weapons Convention shall maintain and permit access to such records and shall submit to the Department of Commerce such reports as the United States National Authority may reasonably require" pursuant to the CWC (Section 301). Notably, Section 301 only refers to chemicals subject to the CWC without reference to production thresholds; the draft Commerce Department regulations apply to companies that produce CWC-covered chemicals in *any* amount. Section 301 also specifies that the Commerce Department would be required to promulgate its regulations "expeditiously, taking into account the written decisions issued" by the OPCW.

The legislation would furthermore give inspectors from the OPCW Technical Secretariat the power to inspect "any plant, plant site, or other facility or location in the United States subject to inspection" pursuant to the CWC; "representatives" — presumably U.S. Government officials — designated by the National Authority would be able to accompany members of the Technical Secretariat's inspection team during inspections (Section 401). With respect to some inspections, S. 1732 would provide for the designation of a "Lead Agency," other than the Commerce Department, "based, inter alia, on the particular responsibilities of the agency or department within the United States Government and the relationship of the agency or the department to the premises to be inspected" (Section 402).

## Affected Companies

A great deal of disagreement exists over how many and which American firms and productions sites would be affected by the CWC. According to a massive database submitted by the Arms Control and Disarmament Agency (ACDA), the Foreign Relations Committee estimates that some 3,000 to 8,000 companies — many of them with multiple production sites — produce CWC-regulated materials. On the other hand, the Chemical Manufacturers Association (CMA), which supports ratification of the CWC and represents some 190 companies that produce the more

strictly-regulated chemicals under the CWC's "schedule" system, estimates that only 2,000 sites would be subject to CWC provisions and that most of these belong to CMA member companies.

It is significant that both the "schedule" lists of chemicals and details on the conduct of inspections appear not in the CWC treaty text itself but in Annexes I and II. According to one analysis, **"the amendment process for the annexes is more flexible than the amendment process for the bulk of the treaty"** ["The Chemical Weapons Convention Handbook," by Amy E. Smithson, Senior Associate, the Henry L. Stimson Center, September 1995]. It is likely that neither revisions to the "schedules" of regulated substances (i.e., adding new chemicals to the lists or reclassifying existing chemicals) nor changes to the inspection regime would be subject to future Senate advice and consent. This raises the possibility that based on the consensus of CWC-member countries (which will resemble the U.N. General Assembly, not the Security Council) additional American companies, not currently covered by the CWC, might at some future date find that they are regulated and subject to more invasive inspection procedures.

## CWC Regulatory Schedules

Chemicals covered by the CWC are listed in Annex I, which assigns them to one of three schedules, according to their utility for weapons purposes. In addition to these "scheduled" chemicals, the CWC **"requires the declaration and eventual inspection of facilities capable of producing chemicals easily transformed into chemical weapons or weapons precursors. Specifically, those facilities capable of producing non-scheduled discrete organic chemicals must be declared and will be subject to random inspections, beginning the fourth year after the Convention enters into force."** [Smithson, "The Chemical Weapons Convention Handbook"] Attached to this paper is a *"Chemical Weapons Convention Regulatory Flow Chart for American Businesses,"* which outlines the process of determining which schedules apply to a company's activities and the necessary compliance steps that must be taken. The following is a summary of the schedule system, including the chemicals covered, the industries that use such chemicals, the probable number of sites or firms affected, the number of hours needed to file the reports required under the CWC, the applicable inspection regime, and export restrictions.

### Schedule 1: Known Chemical Warfare Agents

**Chemicals Covered:** Substances listed on this schedule are highly toxic and are either known military agents or immediate precursor chemicals for military applications. Examples: sulfur mustard (i.e., mustard gas), alkyl phosphoramidocyanidates (i.e., the nerve agent in Tabun gas), and alkyl phosphonofluoridates (i.e., the nerve agent in Sarin, the gas used in the recent terrorist attack on the Tokyo subway).

**Commercial Uses:** There are some non-military applications for these chemicals, such as anti-cancer treatments and organic synthesis, pesticide and insecticide development, and flame-retardant additives to plastics, resins, and fibers.

**Affected Sites:** According to both the Department of Commerce and the Office of Technology Assessment (OTA), probably fewer than 100 sites would fall under Schedule 1, most of them already heavily regulated under domestic U.S. law.

**Reports:** The Department of Commerce estimates a firm would spend nine hours of paperwork for each Schedule 1 chemical it manufactures or uses. The production threshold for reporting is 100 grams (about 3½ ounces U.S. measure). Reports must include production, processing, consumption, acquisition, import, and export for the previous calendar year and anticipated data for the next calendar year. Ten different reporting forms are applicable to Schedule 1 chemical sites.

**Inspections:** There is no limit to the number or duration of challenge inspections. Schedule 1 sites are subject to up to two routine inspections annually, of duration negotiated between the facility and the OPCW, with 24 hours notice given.

**Exports:** Schedule 1 chemicals could be exported only to other CWC countries.

## **Schedule 2: Toxic Chemicals With Potential Weapons Uses**

**Chemicals Covered:** Substances listed on this schedule are high-risk chemicals that potentially could be used as weapons agents or precursors of chemical weapons. Examples: dimethyl methylphosphonate (used in herbicides), arsenic trichloride (used in making ceramics), and thiodiglycol (used as an ink solvent for ballpoint pens).

**Commercial Uses:** These chemicals have a moderate utility for commercial purposes. Among the industrial use for Schedule 2 chemicals are pharmaceuticals, insecticides, ceramics, antifoaming agents, hypotensive agents, heavy metal extractors, gasoline additives, flame retardants, dyes, lubricants, plastics, defoliants and rodenticides, additives (color stabilizers, antistatic agents, etc.), photographic chemicals, and epoxy resins.

**Affected Sites:** The Commerce Department estimates that about 100 U.S. industrial sites would fall under Schedule 2. The OTA estimate is 200 to 300 sites.

**Reports:** The Department of Commerce estimates a firm would spend 7.2 hours of paperwork for each Schedule 2 chemical it manufactures or uses. The production threshold for reporting is 1 kilogram (about 2.2 pounds U.S. measure) for one particular chemical that has been diverted to weapons purposes, quinuclidinyl benzilate; 100 kilograms (about 220 pounds) for other highly toxic substances that could be used as weapons; and one metric ton (1,000 kilograms) for chemicals that could be used as precursors. Reports must include production, processing, consumption, import, and export for the previous calendar year and anticipated data for the next calendar year. Ten different reporting forms are applicable to Schedule 2 chemical sites.

**Inspections:** There is no limit to the number or duration of challenge inspections. Schedule 2 sites are subject to up to two routine inspections annually, of up to 96 hours' duration, with 48 hours notice given.

**Exports:** During the first three years after the CWC goes into effect, Schedule 2 chemicals could be exported without restriction but would require end-use certification. After three years, Schedule 2 chemicals could be exported only to other countries that had ratified the CWC.

## Schedule 3: Chemicals Used in Industry With Weapons Potential

**Chemicals Covered:** Substances listed on this schedule are widely used for industrial purposes but have been used in the production of chemical weapons. Example are phosphorus oxychloride (used in agricultural chemicals, dyes, and flame retardants), phosgene (used in plastics but also one of the principal poison gases used during World War I), and triethanolamine (used in pharmaceuticals).

**Commercial Uses:** Large quantities of Schedule 3 chemicals are used in many industries for commercial purposes, including resin and plastic production (e.g., polycarbonates, polyester carbonates, and polyurethanes), gasoline additives, hydraulic fluids, insecticides and pesticides, dopant for semiconductors, flame retardants, surfactants, engineering plastics, chlorinating agents, detergents, cosmetics, corrosion inhibitors, rubber accelerators and vulcanizers, pharmaceuticals, polymerization catalysts, soft wood hardeners, fertilizers, and gold extractors.

**Affected Sites:** The Commerce Department estimates that about 200 industrial sites would fall under Schedule 3 regulation. The OTA estimate is about 1,000 sites.

**Reports:** The Department of Commerce estimates a firm would spend 2.5 hours of paperwork for each Schedule 3 chemical it manufactures. The production threshold for reporting is 30 metric tons (about 33 tons U.S. measure). Reports must include production, import, and export for the previous calendar year and anticipated data for the next calendar year. Seven different reporting forms are applicable to Schedule 3 chemical sites.

**Inspections:** There is no limit to the number or duration of challenge inspections. Schedule 3 sites are subject to up to two routine inspections annually, of up to 24 hours' duration, with 120 hours notice given.

**Exports:** Chemicals could be exported but would require end-use certification.

## Non-Scheduled Discrete Organic Chemicals

**Chemicals Covered:** The CWC also regulates the production of non-scheduled substances called "discrete organic chemicals," i.e., compounds of carbon. For purposes of the CWC, a discrete organic chemical (DOC) is any carbon compound except for oxides, sulfides, metal carbonates, pure hydrocarbons, explosives, and some polymers. Within the DOC classification, there is a distinction between those containing the elements phosphorus, sulfur, or fluorine (called "PSF chemicals") and those not containing them ("non-PSF chemicals").

**Commercial Uses:** Very large quantities of these chemicals are used throughout industry. Among the applications are coke and coal production, crop protection, corn and food processing, wood preservation, chlorination, pigment manufacturing, cosmetics, fragrances, pharmaceuticals, paints and varnishes, powder and roof coatings, plastics, organic synthesis, gasoline additives, coffee production, automotive and tire production, soaps, detergents, dyestuffs and sulfur dyes, aluminum, electronics, distilling, fertilizers, and fermentation and brewing (i.e., beer).

**Affected Sites:** The number of companies and sites that will be regulated under the CWC based on DOC production is the most controversial and uncertain element in assessing its impact on American industry. The Commerce Department estimates that as many as 6,000 sites could be subject to treaty provisions as producers of discrete organic chemicals. The OTA estimate is at least 10,000 sites. These estimates are disputed by the Chemical Manufacturers Association, which believes that most companies that will be impacted by the CWC would be those working with chemicals on Schedules 1 and 2. It should be emphasized that the lists and classification of chemicals (and hence, of regulated companies and sites) is subject to revision by the OPCW. The degree to which the United States, after ratification, could influence such revision is open to dispute.

**Reports:** The Department of Commerce estimates a firm would spend 5.3 hours of paperwork for each DOC it manufactures. The production threshold for reporting is 30 metric tons for PSFs and 200 metric tons for all other DOCs. Reports must include production for the previous calendar year. Four different reporting forms are applicable to DOC-producing sites.

**Inspections:** There is no limit to the number or duration of challenge inspections. DOC-producing sites are subject to up to two routine inspections annually, of up to 24 hours' duration, with 120 hours notice given.

**Exports:** No export restrictions are specified for DOCs.

## Other Issues

In addition to the question of the burden CWC compliance might entail for American businesses, the CWC would also raise concerns about loss of proprietary information and infringement on constitutional protections. In addition, the prospect that the United States might *not* ratify the CWC could have an impact on U.S. access to the global market in chemicals.

### Loss of Proprietary Information

If the United States ratifies the CWC, specific decisions about which American sites would be inspected, the composition of the inspection team, and the procedure for analyzing samples taken during the inspection would be made by the OPCW and its Technical Secretariat. It is possible not only that inspectors might be nationals of countries known to have active industrial espionage programs against American firms (e.g., Brazil, China, France) but that inspection samples might be sent for analysis to laboratories in such countries. It is even possible that a challenge inspection would result from a request by a country seeking access for purposes of espionage. During routine and challenge inspections under the CWC, inspectors would be afforded unprecedented opportunity to collect information (air samples, production samples, equipment readings) that could lead to the compromise of valuable trade secrets.



## Constitutional Questions

In particular, the challenge inspections established by the CWC raise concerns about the protection of the rights of Americans under the Fourth and Fifth Amendments to the U.S. Constitution. With regard to the Fourth Amendment (which prohibits "unreasonable searches"), CWC provisions do not require a warrant or that there be "probable cause" (reasonable indication that a prohibited activity is occurring) for an inspection. While many U.S. industries are now subject to a variety of domestic regulations and inspection requirements, such inspections generally are limited to facilities engaged in regulated activities. Under the CWC, however, a challenge inspection could take place anywhere. With regard to the Fifth Amendment (which prohibits uncompensated taking of property), there are questions concerning both the collection of production samples and uncompensated costs in the forms of compromised proprietary information and inspection expenses falling on the company.

In addition, Sections 401 and 402 of the implementing legislation (S. 1732), raise concerns that officials representing federal regulatory authorities (EPA, OSHA), might be designated to accompany inspectors from the OPCW Technical Secretariat to gain access to sites under circumstances not required by domestic law and regulations. It should be noted that S. 1732 (Section 301) requires the promulgation of domestic regulations for any **"chemical subject to the Chemical Weapons Convention"** (Section 301) without reference to the schedules or thresholds; it should therefore be assumed that such regulations would apply not only to chemicals on Schedules 1, 2, and 3, but to non-scheduled discrete organic chemicals, in any amount (see *Inspections of Companies Producing Listed Chemicals*, page 3).

## Access to the Global Market in Chemicals

Because the CWC imposes export controls on Schedule 1 and Schedule 2 chemicals (though not on Schedule 3 chemicals or DOCs), treaty proponents are concerned that a U.S. decision not to ratify the CWC would hurt the American chemical industry's access to the international market. The United States is the biggest chemical manufacturer in the world, and chemical exports are among the most important American products sold abroad. As Frederick L. Webber, President and CEO of the Chemical Manufacturers Association, stated in his testimony to the Foreign Relations Committee on March 21, 1996: **"If the United States does not ratify the treaty, [our] status will change. Our largest trading partners are also party to the Convention, and will be forced to apply trade restrictions to chemicals that originate here, or that are being shipped here. Even if the restrictions only apply to a small portion of the overall chemicals trade, our customers have an incentive to make life as easy as possible. They'll shop where there are no limits. The result? Potentially hundreds of millions of dollars of lost sales, and for no other reason than the United States is not part of the CWC."**

---

RPC staff contact: Jim Jatras, 224-2946  
[Attachment: chart]

## 474

